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A Tribute to Dorothy Skinner: A Complete Person[1]

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All other considerations aside, I want you to know that I have asked myself, "What am I doing here addressing a gaggle of crustacean biologists?" Then I began to remember that I really enjoy all of endocrinology, never paid much heed to the vertebrate-invertebrate line anyway, and had students who used their academic freedom to wander all over the animal kingdom. In fact, I can think of at least a half-dozen types, including Don Mykles as a Ph.D. student and Ernie Chang as an undergraduate research student, who did crustacean physiology at least partly in my bailiwick. So, I do have some specialist professional credentials—guilt by association.

On other ground, however—general biological, collegial, social and personal—I have unchallengeable bases to appear before you. Dorothy Skinner, succinctly, is a scientist and a person for whom my admiration takes place second to none.

If I begin to dissect out the reasons for my great esteem for Dorothy, they direct me to consider Dorothy not only as the Compleat Crustacean Biologist, but also as a leading and pioneering scientist who also happens to be a woman, as a fine and ethical human being who cares about the world and the people in it, and as a great and cherished friend.

Dorothy's research accomplishments are probably better known to you than to me; Linda Mantel outlined them splendidly earlier this morning. Nevertheless, I find the range and significance of her discoveries to be nothing less than astounding. Her analyses of crustacean integumentary changes, of the functional significance of satellite DNAs, of hormone action, of muscle atrophy and regrowth, and of the nature of actin and tubulin genes—all have added to the possibility of a complete crustacean biology, but in addition they are fundamental contributions to *general biology*. Her papers have enriched the literature, and biologists of all kinds have profited from her scholarship. In today's symposium, paper after paper reflected the "seeding" provided by Dorothy to a diversity of research programs.

I do not want to elaborate extensively on Dorothy's science, but I have a couple of comments to make on two of her major reviews that I have recently perused. Her 1985 chapter on molting and regeneration (Skinner, 1985) is nothing less than a classic of sound scholarship to which younger biologists could well be referred, so that they would know how to write a meaningful review when called upon to do so. And her 1991 historical review with John Cook on crustacean regeneration (Skinner and Cook, 1991) exemplifies what we integrative biologists must not let disappear—an analytic appreciation of the development of our special fields. In these days when some practitioners of biology act as if last year's *Proceedings of the National Academy of Sciences* are already an obsolete document, we need to be able to talk about our antecedents, to understand deeply the continuity of ideas, and to recognize that these ideas arise from the intellectual activity of generations of fellow humans. Dorothy does this to perfection in her "New limbs for old" chapter (Skinner and Cook, 1991). If we could all do it with the style that Dorothy achieves, we would really justify the use of the term scientific *literature*.

The constituency of our science, its aca-

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demic departments, and its society membership and officership have greatly changed in the past four decades. Participation of women is no longer occasional or the result of an afterthought—women are now central players in the biological arena. In 1960, this was not the case. Dorothy Skinner is among the pioneer leading scientists who exemplified what women could do and do it sustainedly. She is a role model not only for women, however; men also modeled their career, their ethics, and their courage, on Dorothy. And she had more influence than she probably realized even on her elders, including me. Her professional advancement and her integration into the forefront of modern biological research were not easily attained. All the gross realities arising from men who resented the competition provided by an intellectually more competent woman colleague were hers to face and to face successfully. Guts, Dorothy Skinner had and has, and if this is not a facet of character that we could all use as a model, we would surely be missing the boat.

You can see the evidence of Dorothy's leadership in regard to improving women's status in our profession in the committees and agencies with which she has been associated throughout her career, and in the recognition that this service has brought her. Her social conscience, if you will excuse the old-fashioned term, is an inherent part of her makeup.

As I mentioned earlier, even her elders were motivated by Dorothy's excellence in science and by her courage in collegiality. She and I have been geographically distant but personally close friends for years. We had the luxury of taking each other for granted and, at least on my side, never being disappointed. Now is the time when we should have a real toast, but instead I call for a heartfelt salute to Dorothy Skinner, *the complete person.*

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